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Economic Trends and Judicial Outcomes: A Macrotheory of the Court

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Articles

ECONOMIC TRENDS AND JUDICIAL OUTCOMES: A MACROTHEORY OF THE COURT

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ABSTRACT

We investigate the effect of economic conditions on the voting behavior of U.S. Supreme Court Justices. We theorize that Justices are akin to voters in political elections; specifically, we posit that the Justices will view short-term and relatively minor economic downturns—recessions—as attributable to the failures of elected officials, but will consider long-term and extreme economic contractions—depressions—as the result of exogenous shocks largely beyond the control of the government. Accordingly, we predict two patterns of behavior in economic-related cases that come before the Court: (1) in typical times, when the economy cycles through both recessionary and prosperous periods, the Justices will punish the

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elected branches of government when the economy contracts by voting less frequently for the government; and (2) in atypical times, when the economy moves into a period of deep depression, the Justices will work with the other branches of government by voting more frequently for the government. We test our hypotheses through statistical analysis of taxation opinions rendered by the Supreme Court during the period from 1913 to 1929 (a relatively normal period) and the period from 1930 to 1940 (the Great Depression). We find broad support for our hypothesis in the data we analyze, and we verify that our results are robust to a change in the measure of the economic condition as well as to a change in the specification of the regression model. We conclude that U.S. Supreme Court Justices exhibit voting patterns similar to voters in political elections when it comes to the economy.

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INTRODUCTION

Scholars, commentators, and journalists have long noted the tight interconnection between politics and economics. Whereas elected officials almost universally pursue the goals of national economic growth and stability, specific policies and programs tend to

diverge depending on political preferences.[1] Voters, in turn, rely on economic outcomes as signals of policymaking competence, and consequently reward (or punish) incumbent politicians and parties for the market conditions that emerge. Voters often perceive a declining national economy as evidence of policymaking failure on the part of the president and members of Congress and thus seek to discipline them by casting votes for their opponents in the election cycle. Prosperous conditions, by contrast, imply effective economic management and generally increase the vote share of incumbent parties.[2] So important are economic indicators to the electorate that more than a few forecasters have suggested that variables such as GDP, job creation, and consumer satisfaction are just as salient—and perhaps more so—than the other factors traditionally believed to predict election outcomes.[3]

This link between economics and politics is an empirical reality that scholars have documented in a wide range of contexts: the strongest connection emerges in presidential elections, but the link also surfaces at notable and significant levels in House, Senate, and gubernatorial races.[4] Indeed, whereas commentators debate a number

1. *See, e.g.*, ALBERTO ALESINA, NOURIEL ROUBINI & GERALD D. COHEN, POLITICAL CYCLES AND THE MACROECONOMY 47 (1997) (noting that conservative and liberal politicians tend to pursue divergent policies with respect to unemployment and inflation).

2. *See, e.g.*, RAYMOND M. DUCH & RANDOLPH T. STEVENSON, THE ECONOMIC VOTE: HOW POLITICAL AND ECONOMIC INSTITUTIONS CONDITION ELECTION RESULTS 212 (2008); Allan Drazen, *The Political Business Cycle After 25 Years*, *in* NBER MACROECONOMICS ANNUAL 2000, at 75, 83 (Ben S. Bernanke & Kenneth Rogoff eds., 2000) (noting that a consensus has emerged that aggregate economic conditions before an election, specifically per capita output or income growth, have a significant effect on voting patterns in the United States); *see also* Henry W. Chappell, Jr. & William R. Keech, *A New View of Political Accountability for Economic Performance*, 79 AM. POL. SCI. REV. 10, 10–22 (1985) (presenting a model of economically sophisticated voters as well as empirical evidence that such a model performs well in explaining voter behavior); Ray C. Fair, *The Effect of Economic Events on Votes for President*, 60 REV. ECON. & STAT. 159, 171 (1978) (concluding that real economic activity in the year of an election has an important effect on votes for president); D. Roderick Kiewiet, *Policy-Oriented Voting in Response to Economic Issues*, 75 AM. POL. SCI. REV. 448, 449 (1981) (finding that unemployment concerns are likely to shift a voter toward the Democratic party). *But see* Francisco Arcelus & Allan H. Meltzer, *The Effect of Aggregate Economic Variables on Congressional Elections*, 69 AM. POL. SCI. REV. 1232, 1238 (1975) (concluding that aggregate economic variables, with the possible exception of inflation, do not affect the participation rate or relative party strength in the case of congressional elections).

3. *See, e.g.*, Symposium, *Forecasting the 2008 National Elections*, 41 PS: POL. SCI. & POL. 679 (2008).

4. *See, e.g.*, MICHAEL S. LEWIS-BECK & TOM W. RICE, FORECASTING ELECTIONS 30–33, 64–68, 86, 105–08, 121 (1992) (investigating presidential, House, Senate, and gubernatorial elections in the United States and presidential and National Assembly elections in France).

of issues—such as whether individual voting is retrospective or prospective and which economic factors have the greatest effect on election outcomes[5]—none seem to quarrel with the idea that the macroeconomic factors work as a proxy for policymaking competence and, for this reason, trend with voting patterns.

In this Essay, we investigate whether economic conditions affect perceptions of policymaking competence—and thus voting behavior—in an altogether different context: the U.S. Supreme Court. Specifically, we seek to determine whether the Justices look to the economy for purposes of assessing government policy and then use this information in casting votes for, or against, the government's position in the cases and controversies that appear on their docket. Quite a few scholars have theorized how and why the Justices—as lawyers, political appointees, and members of the highest unelected branch of government—prioritize legal, political, and institutional factors in their decisionmaking process, but few have considered whether Court members take it upon themselves to monitor national economic conditions and then rely on these conditions in the judicial context.[6] In fact, one might ask whether, as a positive matter, the Justices have (or believe themselves to have) the requisite information and expertise to render an opinion on the success or failure of these often complex policies and programs in their own decisionmaking process. And even if such expertise were present on the bench, one might ask what the Justices gain by inserting themselves into national economic debates.

To answer these questions we posit a theory of judicial decisionmaking that incorporates three simple claims. Specifically, we argue that Justices are akin to voters in that they (1) prefer a prosperous economy to one that is deteriorating, (2) assess the government's economic management skills by observing changes in the economy, and (3) cast votes in a manner that seeks to ensure that policymakers pursue the best and most effective programs for promoting national growth and productivity. In setting forth our new macrotheory of the Court, we do not mean to suggest that the Justices prioritize matters economic over legal, political, and institutional

5. *See, e.g.*, DUCH & STEVENSON, *supra* note 2, at 8–16 (discussing various theories of economic voting).

6. Robert Erikson, Michael Mackuen, and James Stimson indirectly investigate the effects of the economy on judicial decisionmaking in their book, ROBERT S. ERIKSON, MICHAEL B. MACKUEN & JAMES A. STIMSON, THE MACRO POLITY 311–16 (2002) (investigating the effect of public opinion on Supreme Court Justices via "mood measure").

concerns; rather, we mean only to suggest that national economic conditions are relevant to the judicial decisionmaking process in a manner never before explored in the literature.

How the Justices choose to use economic factors, if they in fact do, is ultimately an empirical question, but we theorize that, like voters generally, members of the Court adopt two discrete patterns of voting when it comes to the economy. During *typical* business cycles—characterized by the repeated sequence of recessions, giving way to periods of prosperity, which are then followed again by recessions—we expect the Justices to follow the lead of the general electorate by punishing and rewarding Congress and the executive for the economic conditions that emerge.[7] In *atypical* times—those that are associated with massive economic downturns and widespread financial harm—we expect the Court will refrain from second-guessing the policy decisions of the elected branches and, in fact, will seek to support the national government in its attempt to stabilize the economy—much as citizens (and judges) rally around the flag in the face of foreign threats and national emergencies.[8] In sum, we theorize that the Justices will act like voters: they will view short-term and relatively minor economic downturns—recessions—as attributable to the failures of elected officials, but will view the long-term and extreme economic contractions—depressions—as the result of exogenous shocks largely beyond the control of the government and, consequently, a time for team work and not finger pointing.

We test our macrotheory of judicial decisionmaking in the context of taxation opinions rendered by the Supreme Court during two continuous but discrete periods, from 1912 to 1929 and from 1930

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7. Macroeconomists spend quite a bit of time studying the business cycle in part because the ups and downs in the economy are recurrent and expected but also because there is always a possibility of a severe and prolonged economic downturn that could lead to widespread harm. For an excellent discussion of the business cycle, see ANDREW B. ABEL, BEN S. BERNANKE & DEAN CROUSHORE, MACROECONOMICS 282–85 (6th ed. 2008).

8. *See, e.g.*, RICHARD A. BRODY, ASSESSING THE PRESIDENT: THE MEDIA, ELITE OPINION, AND PUBLISC SUPPORT 45–78 (1991); JOHN E. MUELLER, WAR, PRESIDENTS AND PUBLIC OPINION 208–13 (1973); Richard A. Brody, *International Crises: A Rallying Point for the President?*, PUB. OPINION, Dec.–Jan. 1984, at 41, 41–43, 60; Samuel Kernell, *Explaining Presidential Popularity: How Ad Hoc Theorizing, Misplaced Emphasis, and Insufficient Care in Measuring One's Variables Refuted Common Sense and Led Conventional Wisdom Down the Path of Anomalies*, 72 AM. POL. SCI. REV. 506, 509–10, 512–13, 518–19 (1978); John E. Mueller, *Presidential Popularity from Truman to Johnson*, 64 AM. POL. SCI. REV. 18, 18–34 (1970); Lee Sigelman & Pamela Johnston Conover, *The Dynamics of Presidential Support During International Conflict Situations: The Iranian Hostage Crisis*, 3 POL. BEHAV. 303, 303 (1981).

to 1940.[9] The first period, which includes five relatively minor business cycles,[10] enables us to investigate whether the typical business cycle has any effect on judicial decisionmaking. The second period, which is often labeled the Great Depression,[11] allows us to explore the possible effects of a severe economic crisis on Court outcomes. Although our findings are preliminary, we find support for both components of our theory. In the years before 1930, our data indicate the Justices were willing to punish the federal government for economic declines as evidenced by a corresponding decrease in the government's win rate. During the 1930s, however, we find that the government fared better in the Court—the government's win rate actually increased as the economy continued to tank. Taken collectively, these findings enhance our understanding of judicial behavior in several ways. Primarily, they provide some evidence that the Justices believe they have a role to play in assuring national economic prosperity and growth. But the findings also challenge the conventional belief that the Court maintained a strong and unambiguous bias against President Roosevelt's administration prior to the announcement of the Court-packing plan (we find the opposite is true in the context of taxation).[12] In addition, the findings may help explain Supreme Court votes in the post–World War II era and, at the same time, forecast upcoming votes in the context of the serious national economic decline that began in 2008.[13]

Our study unfolds as follows. Part I outlines our new macrotheory of the Court and investigates how it is similar to, and different from, two other prominent theories of the judiciary—the legal and the political accounts of judicial decisionmaking. Part II explains our data collection procedures and outlines the various empirical models that constitute the tests of our theory. In Part III, we describe the results of our empirical assessment, which, to reiterate, show that the Justices rely on the economy as a signal of

9. For an explanation of why we focus on taxation in these two specific eras, see *infra* notes 10–11 and accompanying text.

10. *See infra* Table 5: The Business Cycle; *see also* Nat'l Bureau of Econ. Research, Business Cycle Expansions and Contractions, http://www.nber.org/cycles (last visited Feb. 13, 2009) (providing the chronology of economic peaks and troughs as identified by the National Bureau of Economic Research).

11. *E.g.*, ABEL ET AL., *supra* note 7, at 285–87; *see also* Nat'l Bureau of Econ. Research, *supra* note 10 (providing the chronology of economic peaks and troughs as identified by the National Bureau of Economic Research).

12. *See infra* notes 70–75 and accompanying text.

13. *See infra* Part III and accompanying text.

policymaking competence in periods of the "typical" business cycle but defer to the government in times of economic emergencies, including the Great Depression. We conclude by discussing the limits of our findings, as well as future applications of our theoretical approach.

I. A MACROTHEORY OF THE COURT

A. The Economy as a Signal

Our account begins with what we believe is an uncontroversial claim: the Justices, like virtually all policymakers and citizens, prefer national prosperity to a deteriorating economy plagued by high unemployment, high inflation, and low productivity. Perhaps this preference emerges from the Justices' role as national leaders in the development of law and legal policy, or perhaps it stems from their status as individuals who care very much about their own private investments and purchasing power. We do not seek to explain why the Justices prefer national economic success to failure; rather our point is this: the Justices gain utility from certain economic conditions and suffer disutility from others.

Our theory, of course, does not stop with this simple conjecture. We further hypothesize that the Justices act in a manner that promotes their economic interests through the decisionmaking process. Specifically, we theorize that members of the Court seek to foster competent economic management in the elected branches of government by expressing support for executive and legislative policies in times of economic prosperity and disapproval during *certain* kinds of economic downturns—those that the Justices believe are the product of inept government management. We offer more detail on this component of our theory in this Section,[14] but first we highlight that our account suggests that the Justices implement a sanctioning system that will directly affect the U.S. government when litigating and defending economic policies before the Supreme Court; when the economy is expanding, our theory predicts that the Justices will favor the government's legal position, but as the economy contracts we expect that the Justices will take a dim view of the government's policy or program and cast a greater number of votes against the government's legal interest.

14. *See infra* notes 16–17 and accompanying text.

Our account, thus, indicates that Justices act like voters during election cycles. Just as voters take cues from the economy, attributing good economic times to effective policymaking in the elected branches of government and (*most*) bad economic times to government incompetence,[15] so do the Justices. And just as voters punish (or reward) politicians based on the relative state of the economy, so too do the Justices. Of course, the Justices, unlike voters, do not have the power to throw out (or retain) incumbents, but they can reject (or support) the government's policies through their judicial decisionmaking process. Assuming, as we do, that both the voters and the Justices rationally prefer economic prosperity to economic loss, the electoral success of the incumbent government along with its win rate in Court should trend with national economic conditions.

Importantly, we do not theorize that the Justices, or voters generally, treat every economic downturn equivalently or even primarily as caused by government ineptitude. As suggested above, we theorize—along with most macroeconomists—that economic trends are associated not only with the choices made by the nation's leaders but also with unrelated and unexpected shocks to the economy such as wars, oil price fluctuations, trade barriers imposed by foreign governments, harvest failures, and so forth.[16] This is a distinction with meaning: when the voters and, more importantly for our project, the Justices view the downturn as a product of substandard government policy choices—not of uncontrollable and exogenous shocks—they will often punish the elected branches at the ballot box and in the courtroom. But when the Justices believe that the economic crisis is the result of factors largely beyond the control of the government, they will often not sanction federal policymakers but instead seek to work as a team with the other branches of government to remedy the national crisis, much as voters and judges tend to rally around the president in times of foreign threats and nationwide emergencies.[17]

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15. *See supra* note 7 and accompanying text.

16. *See* ALBERTO ALESINA & HOWARD ROSENTHAL, PARTISAN POLITICS, DIVIDED GOVERNMENT, AND THE ECONOMY 195 (1995) (exploring "political" and "nonpolitical" shock to the economy); ALESINA ET AL., *supra* note 1, at 47 (same); DUCH & STEVENSON, *supra* note 2, at 131–77 (same).

17. *See supra* note 8 and accompanying text.

Economic experts cannot hope to distinguish precisely between these two types of economic downturns[18]—those caused by policymaking failures and those that emerge from outside forces—and we do not believe that the Justices have higher levels of economic proficiency than trained professionals. Indeed, it is possible, perhaps likely, that a complex amalgamation of factors inside and outside of the government's control influences national economic conditions, making it extremely difficult to distinguish useful federal policies from those that impose harm across the nation. Again, we do not expect the Justices to have skill and expertise regarding modern macroeconomic theory, but we do suppose they are able to distinguish *typical* and recurrent economic downturns, often labeled recessions, from *atypical* and rare conditions associated widespread poverty and hardship such as that observed in the 1930s (and also, perhaps, during the serious national economic decline that began in 2008) and described as depressions.[19] Regarding the typical ups and downs that routinely take place in the economy, the Justices will assign blame (credit) to Congress and the president out of a belief (right or wrong) that the economic peaks and troughs lie within the policymakers' control. In atypical catastrophic periods, however, the Justices will view economic conditions as primarily attributable to a series of unexplained and exogenous shocks beyond the control of the government and so will not seek to hold policymakers accountable. Actually, as we suggest above, they will do quite the opposite: like voters, the Justices will join with the government to fend off the crisis.

It is no mystery why we theorize that the economic downturns associated with a typical business cycle—or more technically, the repeated sequence of recessions, giving way to periods of prosperity, which are then followed again by recessions—serve as a judicial proxy

18. *See* ABEL ET AL., *supra* note 7, at 282–440 (outlining the concept of the business cycle and competing accounts of how and why the cycles emerge along with policymaking choices for addressing economic downturns); *see also* FARROKH K. LANGDANA, MACROECONOMIC POLICY: DEMYSTIFYING MONETARY AND FISCAL POLICY 51–52 (2002) (describing the theory of the business cycle in Keynesian macroeconomics).

19. As early as 1946, macroeconomists defined the typical business cycle as follows: "a cycle consists of expansions occurring at about the same time in many economic activities, followed by similarly general recessions, contractions, and revivals which merge into the expansion phase of the next cycle; this sequence of changes is *recurrent* but not periodic; in duration business cycles vary from more than one year to ten or twelve years." ARTHUR F. BURNS & WESLEY C. MITCHELL, MEASURING BUSINESS CYCLES 3 (1946) (emphasis added). At the same time, experts note that "[s]ometimes—fortunately, not very often—these episodes have been severe and prolonged" and "[i]f the recession is particularly severe, it becomes a depression." ABEL ET AL., *supra* note 7, at 282, 283.

for government policymaking failure. Our account reflects the extant literature in both political science and economics on the relevant incentives of elected officials—specifically that presidents (and members of Congress) are often willing to ignore, tolerate, or even risk short-term national economic losses in off-election years for political gain.[20] The idea that politicians willingly adopt targeted legislation for favored groups, often to the detriment of the aggregate public, has become widely viewed as an empirical regularity by most scholars of political economy.[21] At the same time, the literature suggests that elected officials will work hard to fend off protracted periods of (costly) economic distortion given that such conditions not only cause widespread and serious damage to citizens across the nation, but also to the long-term political reputations of incumbents.[22] If this is so—if elected officials have an incentive to shirk in the short term but not the long term, if they are willing to risk a series of minor recessions but not vast and widespread depression-like conditions—then it is perfectly reasonable for the Justices (and voters) to believe that the economic downturns that take place during the typical business cycle are the product of inept policies, whereas economic crises (that is, precisely the economic conditions elected officials seek to avoid) are beyond their control.

If our account accurately captures the Court's interest in promoting proficient policymaking, then it has strong empirical implications. First, we expect the Justices to reward the elected branches of government for periods of prosperity by adopting a progovernment position in litigation involving economic policy. Put another way, the government's win rate should positively correlate with various economic indicators, such as employment rates, industrial production levels, GDP, and so forth. Conversely, when the economy turns sour and the Justices hold elected actors responsible out of a belief they have privileged their short-term electoral interests—that is, during recessionary periods—we expect the Justices

20. *See* sources cited *supra* notes 16–18.

21. For a terrific description of the modern theories of Congress, see generally C. LAWRENCE EVANS & WALTER J. OLESZEK, CONGRESS UNDER FIRE: REFORM POLITICS AND THE REPUBLICAN MAJORITY 166–72 (1997); FORREST MALTZMAN, COMPETING PRINCIPALS: COMMITTEES, PARTIES, AND THE ORGANIZATION OF CONGRESS 9–32 (1997); ERIK SCHICKLER, DISJOINTED PLURALISM: INSTITUTIONAL INNOVATION AND THE DEVELOPMENT OF THE U.S. CONGRESS 5–12 (2001); Kenneth A. Shepsle & Barry R. Weingast, *Positive Theories of Congressional Institutions*, 19 LEGIS. STUD. Q. 149, 158 (1994).

22. *See* sources cited *supra* note 21.

to punish the bad policy choices by ruling against the government. If the Justices believe, however, that Congress and the president could not have prevented the downturn if only because the crisis worked against their electoral prospects—that is, during deep depressions—we do not expect the Justices to hold them responsible or even to second-guess their policymaking choices. In fact, we hypothesize that the Justices will support the national government in its attempt to stabilize the economy by deferring to its arguments in the economic cases that appear on the docket.

These implications are relatively straightforward to assess and we undertake that task in Part III. But before turning to the empirical tests, two matters deserve attention. One concerns the relationship between our account of judicial decisionmaking and the various other theories of the Court in the literature. We explain how our new theory fits within this literature in Section C. The second centers on two questions about judicial behavior, specifically (1) why we expect members of the Court considering cases involving economic policy to align with the voting public and not the governing elite and (2) what goals the Justices seek to achieve if, in fact, they vote in a manner that is consistent with our macrotheory. We address both questions in Section B.

B. Judicial Behavior: Voting with the Masses to Achieve Elite Goals?

Why would the Justices, as political appointees (nominated by the president and approved by the Senate), echo or ally themselves with the voting masses on economic issues and not with the Washington elite who helped place them in power? The answer to this question is simple: it is in the Justices' best interests to side with the voters. Recall that our theory is grounded in the idea that the Justices prefer economic growth and stability to conditions associated with economic decline. If the Justices believe that Congress and the president are shirking their management responsibilities for, say, political gain, and that this shirking has negatively affected the economy, then it is entirely rational for the Justices to punish this behavior in an effort to encourage policymakers to act in the best interests of the nation. In short, if the Justices are able to mitigate the impact of bad policy choices through the judicial process, Congress and the president will be less likely to make bad economic decisions in the future.

Similarly, it is rational for the Justices to support the government in its economic efforts if they believe outside forces have led to a severe economic setback. In these circumstances, sanctioning elected officials through the judicial decisionmaking process may aggravate the nation's declining economic circumstances, thereby undermining the judicial goal of a stable and growing economy. Theorizing that the Justices will increase their level of cooperation with the elected branches in periods of a national crisis does not lead to the conclusion that they suddenly become altruistic—they do not.[23] Rather, our approach to cooperation that is sparked by economic crisis suggests that the advantages associated with putting the economy back on track align with the Justices' preference for national prosperity.[24]

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23. Dean Tjosvold, *Cooperation Theory, Constructive Controversy, and Effectiveness: Learning from Crisis*, *in* TEAM EFFECTIVENESS AND DECISION MAKING IN ORGANIZATIONS 79, 89 (Richard A. Guzzo & Eduardo Salas eds., 1995) (suggesting that cooperation is not explained by individual altruism but by rational self-interested behavior).

24. The notion that the Justices' utility is linked to their level of teamwork with Congress and the president is consistent with much of the existing literature on the Court. A number of political and economic theorists have adopted the team model to investigate and explain various features of the federal judiciary. *See, e.g.*, Lewis A. Kornhauser, *Adjudication by a Resource-Constrained Team: Hierarchy and Precedent in a Judicial System*, 68 S. CAL. L. REV. 1605, 1605–13 (1995) (adopting a team model to explain the hierarchical structure of the courts); Steven Shavell, *The Appeals Process as a Means of Error Correction*, 24 J. LEGAL STUD. 379, 408–10 (1995) (same); Charles M. Cameron & Lewis A. Kornhauser, Law Creation by a Team of Judges 1–21 (May 2, 2005) (unpublished manuscript), *available at* http://www.law.northwestern.edu/faculty/conferences/research/Kornhauser.pdf (same). Moreover, just as the idea that the Court will at times engage in a team effort to advance broad social goals is not new, the idea that exposure or vulnerability to harm or loss increases individuals' desire to cooperate is not novel. This dynamic—perceived vulnerability leading to increased levels of cooperation—has been observed in many contexts in both the private and public spheres. *See, e.g.*, LAURENCE BARTON, CRISIS IN ORGANIZATIONS: MANAGING AND COMMUNICATING IN THE HEAT OF CHAOS 3–4 (1993); Tjosvold, *supra* note 23, at 80. Various scholars explain the phenomenon by noting the widespread belief that individual utility is directly linked to group effort in times of perceived threat; others argue that cooperation can be explained by the improved guidance and direction that tend to emerge from group leaders in times of stress. But few scholars who study cooperation and teamwork question its existence and its increased level in times of crisis. Indeed, when it comes to federal lawmaking, a number of economic historians have noted the readiness of policymakers to set aside partisan and ideological conflict to unite the government and to better address national emergencies. *See* BARTON, *supra*, at 20–22; Tjosvold, *supra* note 23, at 86–92 (describing increased levels of teamwork during crises); *see also* ROBERT HIGGS, CRISIS AND LEVIATHAN: CRITICAL EPISODES IN THE GROWTH OF AMERICAN GOVERNMENT 147–50 (1987) (describing the Supreme Court's jurisprudence with regard to war measures, which often is seen as being slanted in favor of the government and out of line with the Court's other decisions); HAROLD C. RELYEA, NATIONAL EMERGENCY POWERS 7 (2007) (explaining the Supreme Court's interpretation of emergency presidential power during the Great Depression); Harry T. Edwards, *The Effects of Collegiality on Judicial Decision Making*, 151 U. PA. L. REV. 1639, 1671 (2003) (noting that collegiality and a group approach leads to better

Cooperation and teamwork do not mean the Court will work alongside Congress and the president to identify creative solutions to the macroeconomic policy problems facing the nation. Rather, it is far more likely that cooperation, if it exists, will emerge in the form of increased deference to the U.S. government as litigant. This reflects the Justices' lack of expertise on economic issues, which strongly contrasts with their expertise on legal and constitutional issues.[25] With limited information and know-how, the Justices will not seek to participate in the creation of new macroeconomic policy but will defer to the elected branches of government, which have greater ability, experience, and knowledge to address economic issues.

Another set of questions centers on efficacy: Even assuming, as we do, that the Justices rationally prefer economic prosperity to economic loss, why would this preference affect the judicial process in any observable way? Put differently, is it rational for the Justices to believe they can promote effective policymaking in the elected branches of government via their own decisionmaking process? This question arises because the causal link between writing judicial opinions and inducing policies and programs that promote national economic interests is ambiguous (even if the Justices are capable of rendering credible opinions on economic questions).

As it turns out, though, our argument that rational Justices will look to the economy as a signal of policymaking competence in the elected branches of government and will use their decisionmaking power to support (or impede) the policies and programs that emerge does not rest on the idea that Congress and the president will immediately transform their economic policies in response to these disciplinary measures. To be sure, a systematic decrease in the government win rate in the face of a deteriorating economy is not the preferred outcome of any administration, but we do not argue that this penalty is equal to that threatened by the general voting public. Instead, we argue that Justices may view their ability to refuse to implement flawed policies and programs as a way to encourage better economic management in the elected branches of government at the margin. More importantly, we posit that judicial refusal to implement

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jurisprudence); Lynn A. Stout, *Judges as Altruistic Hierarchs*, 43 WM. & MARY L. REV. 1605, 1612–18 (2002) (explaining the emergence of altruism in the face of social dilemmas).

25. LEE EPSTEIN ET AL., THE SUPREME COURT COMPENDIUM 263–398 (4th ed. 2007) (providing data on Justices' backgrounds which reveals that they have not had much economic training).

perceived policy failures could work to limit possible damage to the economy, thereby advancing the interests of the Justices. Similarly, in times of crisis, we simply argue that the Court's progovernment bias will assist Congress and the president in the recovery effort, again promoting the Justices' interests in economic growth and stability.

C. Differences between the Macrotheory of the Court and the Legal and Political Models of Decisionmaking

Before we begin to assess our theoretical and empirical claims, an additional matter deserves some attention: how do the other extant theories of judicial decisionmaking treat economic conditions? This is an important question to raise for the following reason: if our theoretical approach, however distinct it may be, yields precisely the same implications as other theories, we will be unable to assess which of the accounts best explains the decisions we observe. A review of the two leading extant theories, the legal and the political, however, suggests that this potential problem of equivalence is not likely to be much of a concern.

Legal approaches suggest that the Justices rendering opinions in cases and controversies privilege existing legal tenets and doctrine; they are neutral deciders who look to the U.S. Constitution, statutes, judicial precedent, and various other legally relevant materials to maximize the correctness of answers to the legal issues presented.[26] Accounts of this sort do not necessarily imply that the Justices have no personal preferences or are always in agreement with the controlling legal precedent;[27] rather, they hold that the Justices are willing to set aside their views in order to create a rational, efficient, and fair collection of laws and legal policies that ultimately are perceived to promote the greater social good.[28] Political theories of

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26. *See, e.g.*, Evan H. Caminker, *Precedent and Prediction: The Forward-Looking Aspects of Inferior Court Decisionmaking*, 73 TEX. L. REV. 1, 5 & n.20 (1994) (noting that the consensus scholarly and judicial view on "correct outcomes" is that they reflect adherence to superior court rulings); Kornhauser, *supra* note 24, at 1612.

27. *See, e.g.*, Caminker, *supra* note 26, at 27 n.99 ("[D]eference need not be based on the assumption that the first court reached the correct result. Rather, the doctrines of stare decisis and hierarchical precedent are based on the realization that various institutional and substantive values are served, at least generally, if prior interpretations (whether or not correct) are maintained into the present and future.").

28. *See* Nancy C. Staudt, *Taxpayers in Court: A Systematic Study of a (Misunderstood) Standing Doctrine*, 52 EMORY L.J. 771, 835–40 (2003) (providing a brief discussion of the values in federal court decisionmaking and in the standing context in particular). Many scholars and jurists subscribing to this theory believe, for example, that judicial obedience to and compliance

judicial decisionmaking, by contrast, assume that the Justices have political preferences that they seek to embed in their opinions.[29] The political theory does not ignore precedent or law-related factors but views the development of doctrine as a way to implement partisan and ideological viewpoints and to keep lower court judges in line.[30] Unlike the legal theory, however, the political theory of adjudication views legal doctrine as a mechanism to realize judicial politics rather than a path to inevitable, neutral, or fair outcomes based on full consideration of the legal issues presented. The assumption that the Justices pursue their own goals and aims does not always lead to the conclusion that individual Justices have little regard for others and no

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with the law leads to the uniform treatment of litigants and thus a perception of fairness. Moreover, law and doctrine is arguably valuable because it enables individuals to predict outcomes, which, in turn, permits an understanding of social and business interactions, allows reliance on expectations, creates disincentives to litigate every conflict, and ultimately deters expenditure of private and judicial resources. Finally, many argue that adherence to the law fosters respect for the judiciary because it demonstrates that the Justices draw on a body of law that represents collective experience over time rather than upon their own political and ideological viewpoints. H.L.A. HART, THE CONCEPT OF LAW 135 (2d ed. 1994) (asserting that the strongest rationale for binding precedent is its usefulness in assuring like cases are treated alike); RICHARD A. WASSERSTROM, THE JUDICIAL DECISION: TOWARD A THEORY OF LEGAL JUSTIFICATION 69–72 (1961) (noting the link between fairness and binding precedent); *see also* WASSERSTROM, *supra*, at 60 (stating that precedent is useful because it enables certainty that would otherwise be impossible); Oona A. Hathaway, *Path Dependence in the Law: The Course and Pattern of Legal Change in a Common Law System*, 86 IOWA L. REV. 601, 652–54 (2001) (arguing that the doctrine of stare decisis is an appeal to a general principle of equality, a "cousin [to] the Kantian principle of universalizability and the biblical Golden Rule," and that the public will view judicial decisionmaking as fair and not capricious if based on precedent); David Lyons, *Formal Justice and Judicial Precedent*, 38 VAND. L. REV. 495, 496 (1985) (stating that predictability in judicial decisionmaking is a key rationale for adhering to precedent).

29. *See, e.g.*, JEFFREY A. SEGAL & HAROLD J. SPAETH, THE SUPREME COURT AND THE ATTITUDINAL MODEL REVISITED 86 (2000); McNollgast, *Politics and the Courts: A Positive Theory of Judicial Doctrine and the Rule of Law*, 68 S. CAL. L. REV. 1631, 1636 (1995) (stating the assumption that judges do not check their politics at the courtroom door, but rather act to bring policy as close as possible to their own preferred outcome).

30. Linda R. Cohen & Matthew L. Spitzer, *Solving the* Chevron *Puzzle*, 57 LAW & CONTEMP. PROBS. 65, 68 (Spring 1994) (asserting that the Supreme Court uses legal doctrine as a signal to lower courts about the range of opinions and outcomes that it will tolerate); McNollgast, *supra* note 29, at 1641–56 (discussing precedent as a reflection of political preferences); Terry M. Moe, *The New Economics of Organization*, 28 AM. J. POL. SCI. 739, 740–50 (1984) (looking at organization in the context of a firm); Donald R. Songer, Jeffrey A. Segal & Charles M. Cameron, *The Hierarchy of Justice: Testing a Principal-Agent Model of Supreme Court–Circuit Court Interactions*, 38 AM. J. POL. SCI. 673, 673–92 (1994); *see also* Chad Westerland et al., Lower Court Defiance of (Compliance with) the U.S. Supreme Court 5–6 (Apr. 9, 2006) (unpublished manuscript), *available at* http://epstein.law.northwestern.edu/research/conferencepapers.2006MPSA.pdf (discussing three different but related branches of agency theory).

respect for the rule of law;[31] the point of the political theory is that the Justices are not objective decisionmakers who check their personal opinions on legal controversies at the courtroom door.[32] Instead the Justices have personal viewpoints *and* give them weight when issuing decisions.[33]

How do these theories of adjudication account for macroeconomic trends? The answer: macroeconomic trends are completely irrelevant to the decisionmaking process in both models. In the legal model, the Court's responsibility is to ensure that government policies comply with the mandates of relevant federal laws and, absent a legal breach, the Court will uphold the government activity as entirely legitimate. The legal model, in its most extreme form, gives no consideration to the individual views of the Justices or to national political, economic, or cultural trends, unless they are somehow embedded into the law through the majoritarian process. Giving consideration to these extralegal factors would undermine the very purpose of the legal approach. Rather than merely applying the relevant law, the Justices would be forced to study the economy. Similarly situated litigants would be denied uniform treatment in the courtroom, and perceptions of fairness would be damaged. In short, if economic cycles could alter judicial interpretation of the laws, litigants would be governed by the economy and not by law at all.

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31. McNollgast, *supra* note 29, at 1636.

32. Indeed, even members of the federal bench acknowledge that judges are rational actors seeking to embed their own ideas and views into the decisions they reach; judicial decisionmakers, Judge Posner argues, seek to "impose their political vision on society" through opinions and rulings, just as an artist imposes an aesthetic vision on society through art. RICHARD A. POSNER, OVERCOMING LAW 121 (1995); *see also* Frank B. Cross, *Decisionmaking in the U.S. Circuit Courts of Appeals*, 91 CAL. L. REV. 1457, 1472 (2003) (supporting the theory that judges make decisions based upon policy preferences, especially with the increase in the number of clerkships).

33. McNollgast, *supra* note 29, at 1635. Some scholars criticize judges who have strong beliefs and then act upon them in the decisionmaking process, but this policy-oriented approach is not universally disfavored. Indeed, some argue that if a judge believes the Constitution requires an interpretation that conflicts with past precedent, the judge *must* ignore the precedent when deciding cases. *See, e.g.*, Gary Lawson, *The Constitutional Case Against Precedent*, 17 HARV. J.L. & PUB. POL'Y 23, 25–38 (1994) (arguing that if a court believes the Constitution and precedent are in conflict, it just ignores the precedent); *see also* Orley Ashenfelter, Theodore Eisenberg & Stewart J. Schwab, *Politics and the Judiciary: The Influence of Judicial Background on Case Outcomes*, 24 J. LEGAL STUD. 257, 281 (1995) (stating that judges' political interests may have a role in shaping outcomes but this is not necessarily disturbing); Caminker, *supra* note 26, at 2–3 (discussing situations in which judges adhered to their own idiosyncratic political or legal views despite clear Supreme Court precedent to the contrary and noting scholars' diverse reactions).

Similarly, the political model leaves no room for macroeconomic factors to affect judicial outcomes. The Justices may have strong partisan positions on macroeconomic policymaking; various scholars, for example, have theorized that members of the left-leaning parties are more concerned with unemployment and growth and relatively less concerned with inflation, whereas members of right-leaning parties have just the opposite preferences.[34] But these preferences show up in the judicial decisionmaking process in systematic choices in favor of the government or private individuals and do not change with economic contractions and expansions. Indeed, judicial theorists subscribing to the political theory assume that ideological preferences are stable throughout the Justices' careers[35] and thus cannot shift with the business cycle. Although this stability assumption is not explicit in the extant literature, it can be found in nearly all the existing measures of judicial preference and ideology as well in the empirical tests of judicial decisionmaking.[36]

In sum, our macrotheory of the Court argues that the Supreme Court Justices, like most elected officials and citizens, gain utility from national economic prosperity and disutility from declining economic conditions. The theory, in turn, implies that judicial voting will cycle with the economy; the Justices, in short, will seek to use their decisionmaking power to promote adept policymaking inside the executive and legislative branches of government. The legal and political theories of the Court, by contrast, do not see a role for economic conditions in the decisionmaking process; the former suggests that legal rules explain judicial trends, whereas the latter implies that observed outcomes are based on political preferences.

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34. ALESINA ET AL., *supra* note 1, at 47.

35. *See, e.g.*, Lawrence Baum, *Comparing the Policy Positions of Supreme Court Justices from Different Periods*, 42 W. POL. Q. 509, 513–14 (1989).

36. Teams of scholars have begun to question the widespread assumption of preference stability, but no scholar has yet offered a theory to explain why or when the Justices will alter their political viewpoints. *See, e.g.*, Lee Epstein et al., *Do Political Preferences Change? A Longitudinal Study of U.S. Supreme Court Justices*, 60 J. POL. 801, 806–08 (1998); Lee Epstein et al., *Ideological Drift Among Supreme Court Justices: Who, When, and How Important?*, 101 NW. U. L. REV. 1483, 1485–86, 1493–97 (2007). Our macrotheory of the Court offers a theoretical account for this finding in the economic context. If the Justices do indeed modify their decisionmaking to account for national economic cycles then we would expect ideological drift: both liberal and conservative Justices would show an increased propensity to favor the federal government when the economy turns sour. Because decisions that work in favor of the government are perceived as liberal if rendered in the economic context, the theory would suggest that Justices will systematically appear more liberal in times of economic downturn and more conservative in times of economic upturn.

II. ASSESSING A MACROTHEORY OF THE COURT

Having outlined our theory and addressed some important questions, we turn to a simple empirical test of our model. In Section A, we outline our overall assessment plan and the steps we took to implement it, and in Part III we report our results. In this preliminary study, as noted in Part I, we find quite a bit of support for a macrotheory of the Court.

A. The Basic Plan

Our primary objective is to develop a richer and more systematic understanding of whether and how the economy affects judicial decisionmaking. To advance our understanding of the Court, we conducted a preliminary test of our macrotheory of the judiciary in the context of *federal taxation* cases decided in *two historical eras* of the twentieth century: 1912–1930 and 1930–1940.

Our focus on these two historical eras reflects our theoretical account. Whereas the economy experienced ups and downs during both eras, our theory anticipated different responses from the Justices. For cases in the first era—an era of relative prosperity, though with the typical ups and downs—we expected to find the Court rewarding the government during peaks and punishing it during the (relative) downturns. In the second era—when, by any definition, the country experienced an economic crisis of epic proportions[37]—we expected precisely the opposite: that the Justices would join with the other branches in an effort to prevent even further decline, deferring to, not punishing, the government in its litigation efforts. However preliminary, we think this test of our theory is a particularly difficult one. Given the voluminous literature on the showdown between President Roosevelt and the Court, it would seem—in contrast to our theory—that the Justices did anything *but* defer to the government in times of economic crisis.[38] We shall see.

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37. *See* ABEL ET AL., *supra* note 7, at 285–86 ("The worst economic contraction in the history of the United States was the Great Depression of the 1930s. . . . To appreciate how severe the Great Depression was, compare it with the two worst post-World War II recessions of 1973-1975 and 1981-1982. In contrast to the 30% real GDP decline and 25% unemployment rate of the Great Depression, in the 1973-1975 recession real GDP fell by 3.4% and the unemployment rate rose from about 4% to 9%; in the 1981-1982 recession real GDP fell by 2.8% and the unemployment rate rose from about 7% to about 11%.").

38. *See, e.g.*, ROBERT H. JACKSON, THE STRUGGLE FOR JUDICIAL SUPREMACY 86–114 (1941); WILLIAM E. LEUCHTENBURG, THE SUPREME COURT REBORN: THE CONSTITUTIONAL

We could use several legal contexts to test our theory, but we believe that taxation is an excellent venue for investigating the effects of the economy on judicial behavior for several reasons. First, our theory implies that the U.S. government's win rate in the Supreme Court will correlate with economic conditions; thus, a useful test of the theory requires a collection of cases involving the U.S. government. Second, policymakers and macroeconomists widely believe that tax laws can and should be used to effectuate economic growth and stability,[39] and thus it is reasonable to expect the Justices to rely on economic outcomes in assessing challenged government tax policies. Finally, Congress and the president have constantly revised the tax laws over the periods of this study and thus we have quite a bit of variation in the data, thereby enabling a full and complete investigation of our theory.[40]

B. Implementing the Plan

Having outlined our basic plan, we turn to the specific features of our empirical test. Because we sought to explain the outcomes in federal tax cases, both for and against the government, the first order of business was to amass a dataset of every tax case argued before the Court between 1913, when the Court heard its first federal tax challenge to the modern corporate and individual tax laws, and 1940.[41]

REVOLUTION IN THE AGE OF ROOSEVELT 82–162 (1995); ALPHEUS THOMAS MASON, THE SUPREME COURT FROM TAFT TO WARREN 98 (rev. ed. 1968); ROBERT G. MCCLOKSEY AS REVISED BY STANFORD LEVINSON, THE AMERICAN SUPREME COURT 91 (4th ed. 2005); WILLIAM F. SWINDLER, COURT AND CONSTITUTION IN THE 20TH CENTURY: THE NEW LEGALITY, 1932–1968, at 28–55 (1970).

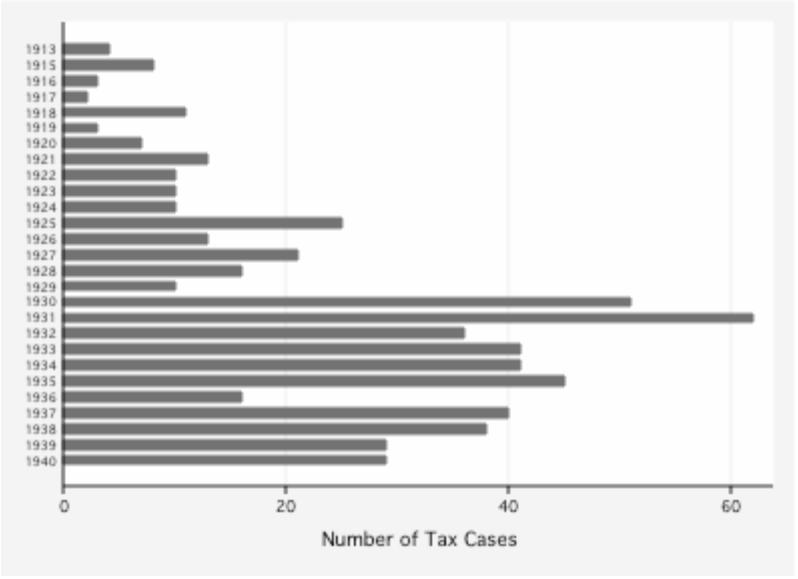
39. LANGDANA, *supra* note 18, at 10.

40. *See* JOHN F. WITTE, THE POLITICS AND DEVELOPMENT OF THE FEDERAL INCOME TAX 75–109 (1985); *see also* STEVEN A. BANK, KIRK J. STARK & JOSEPH J. THORNDIKE, WAR AND TAXES 49–90 (2008) (exploring changes in American tax policy between World Wars I and II).

41. Congress enacted the first modern individual income tax legislation in 1913 following the adoption of the Sixteenth Amendment. *See* WILLIAM A. KLEIN, JOSEPH BANKMAN & DANIEL N. SHAVIRO, FEDERAL INCOME TAXATION 5 (14th ed. 2006). Four years prior, in 1909, Congress enacted the Corporate Excise Tax of 1909, which levied a tax on corporate income and has been viewed as a stepping stone toward the modern income tax. *See* Act of Aug. 5, 1909, § 38, 36 Stat. 11, 112; *see also* Marjorie E. Kornhauser, *Corporate Regulation and the Origins of the Corporate Income Tax*, 66 IND. L.J. 53, 53 (1990). For cases stemming from the individual income tax enacted after the Sixteenth Amendment, the earliest oral arguments in our sample occurred on October 14, 1915. Cases in our sample with oral arguments before this date related to the Corporate Excise Tax of 1909.

To do so, we conducted a Lexis search on the word "tax."[42] We reviewed each case produced by the search, retaining only those that involved the Justices' interpretation of a federal tax statute. Thus, we excluded state taxation cases, as well as cases that involved tax fraud but no statutory interpretation problem. This resulted in a collection of 594 cases, dispersed over twenty-eight years. As Figure 1 depicts, the distribution of cases is rather uneven—the Justices heard and decided more cases during the second era of our study than the first (about 10.4 per year through 1929 and 38.9 per year thereafter).[43]

Figure 1. Tax Cases in the U.S. Supreme Court by Year of Oral Argument, 1913–1940



42. The Lexis search that we conducted read as follows: (federal w/s tax!) or (excise w/s tax!) or (estate w/s tax!) or (user w/5 fee) or (user w/s tax!) or (tax! w/s fraud) or (irc) or (i.r.c.) or (stamp w/s tax!) or (income w/s tax!) or (internal w/s revenue) or (tax! w/s lien) or (tax! w/s code) or (tax! w/s evad!) or (tax! w/s evasion) or (corporate w/s tax!) or (payroll w/s tax!) or (employment w/s tax!) or (social w/s security) or (26 usc) or (26 u.s.c.) or (tax! w/s refund) or (tax! w/s deficiency) or (unemployment w/s tax!) or (gift w/s tax!) or (fica w/s tax!) or (f.i.c.a. w/s tax!). We selected only those cases with oral arguments between 1913 and 1940. We then refined our search as described *infra* text accompanying note 43.

43. This difference appears to be due to a change in the Court's preference for tax cases as the total number of cases decided by the Court actually declined somewhat during the 1930s relative to the pre-1930s period of our analysis. This change in preference may correspond to an underlying change in the nature of the tax cases heard that we have not accounted for, and as such it represents a potential limitation of our analysis.

With the cases in hand, we coded our primary dependent variable (that is, what we hope to explain) in two different ways. We first coded the Court's *Outcome* as a binary variable: whether the government won (=1) or lost (=0) and, for robustness checks, we also coded the government's share of votes, which is the fraction of Justices participating in the case and voting in the government's favor.[44] A *Vote Share* of 0 indicates a unanimous decision in the private litigant's favor, a *Vote Share* of 1 indicates a unanimous decision in the government's favor, a *Vote Share* of .5 indicates that 50 percent of the sitting Justices voted with the government, and so forth.

Table 1 supplies summary statistics for *Outcome* and *Vote Share* (along with all other variables in our study), so we need not say too much more about them. Suffice it to note that the difference in the government's win rate—however measured—between the two eras of interest is not statistically significantly different.[45] The question is whether the U.S. government's success is correlated at statistically significant levels with the economic contractions and expansions occurring within those periods (consistent with our economic model) or whether the government's success is simply constant over time (as the legal model would predict)[46] or associated with the political values of the Justices (as the political model predicts).

Table 1. Summary Statistics

Variable	Mean (Proportion)	Std. Deviation	Minimum	Maximum
Outcome	.658	.475	0 (US lost)	1 (US won)

44. We run our primary tests with the binary outcome variable as the dependent variable, and then we perform another set of tests with the share of votes as the dependent variable. The purpose of this second set of tests is to check whether the results we obtain in the primary test still hold true when we conduct similar but somewhat differently structured tests. In this way, we check whether our primary analysis is robust to changes in the particular type of analysis we perform.

45. The difference in the rates is not statistically significant if it is small enough that it is likely to occur by random chance. In general, a value is statistically significant if the probability that it would occur by random chance is lower than some specified threshold confidence level. Throughout this work, we use a 5 percent confidence level for statistical significance, unless otherwise indicated.

46. Under the legal model, the government's win rate will not change in a statistically significant way over time if the characteristics of the cases heard do not change in a statistically significant way. Thus, when the economic climate changes, we expect a roughly constant win rate for the government, provided that the nature of the cases heard remains roughly constant.

Pre-1930	.607	.490	0	1
1930s	.678	.468	0	1
Vote Share	.652	.440	0 (no votes for US)	1 (unanimous for US)
Pre-1930	.600	.461	0	1
1930s	.671	.431	0	1
Economic Cycles	.557	.497	0 (contraction)	1 (expansion)
Pre-1930	.675	.470	0	1
1930s	.512	.500	0	1
Industrial Production	.001	.032	-.089	.166
1919–1929	.004	.029	-.082	.094
1930s	.000	.033	-.088	.166
Fraction Republicans on Court	.655	.148	.22	.78
Pre-1930	.755	.046	.67	.78
1930s	.616	.156	.22	.78
Government is Petitioner	.551	.497	0 (respondent)	1 (petitioner)
Pre-1930	.560	.498	0	1
1930s	.547	.498	0	1
Corporate Taxpayer	.364	.481	0 (not corporate)	1 (corporate)
Pre-1930	.373	.485	0	1
1930s	.360	.480	0	1
War-Related Law	.059	.236	0 (no)	1 (yes)
Pre-1930	.096	.296	0	1
1930s	.044	.206	0	1

This brings us to our study's independent variables—those we (or others) think explain the government's success or lack thereof. For our approach, the key variable of interest is the state of the economy. As noted above, we hoped to tap into both the "typical" business cycle—the repeated sequence of economic expansion, giving way to a decline, and then followed by recovery—as well as the extreme conditions that emerged during the Great Depression. Were we analyzing litigation in, say, the last several decades, we could turn to any number of indicators associated with the economy, including consumption, investment, employment, or inflation. Unfortunately,

reliable historical data are rare and thus we have only a limited selection of measures. Two that are valid, reliable, and available for (most of) the years in our study are *Economic Cycles* and *Industrial Production*.

Cycles is the series of economic peaks (high points) and troughs (low points) as identified by the NBER Dating Committee. After the economy peaks, aggregate economic activity tends to fall, sending the economy into an official contraction or recession. After the economy reaches a trough, it tends to return to a period of expansion, booming until it hits the next peak in the cycle. To incorporate *cycles* into our statistical model, we coded the relative state of the economy at the time the Justices heard oral argument—either at expansion (=1) or contraction (=0).[47] *Industrial Production* measures the change in output for the industrial sector of the economy, including manufacturing, mining, and utilities.[48] For *Industrial Production*, we identified the average percentage change in industrial production over the month prior to oral argument for each case heard since 1919 (the first year for which we could locate reliable data).

Finally, we gathered data on several other covariates that scholars have suggested explain the Court's decisions. Beginning with political accounts of judging, for each case we coded the fraction of Justices appointed by Republican presidents. Theoretically this variable could range from 0 to 1, but empirically the proportion of Republican-appointed Justices in the dataset ranges from .22 to .78.[49] Our reasoning, in line with the extant literature,[50] was that, at least for our time frame, a Court dominated by Republican appointees would be less likely to support government efforts to regulate the economy than a Court populated by Democrats.[51] Along a similar vein, we incorporated a variable indicating whether or not the United States was the petitioner (=1) or the respondent (=0) in the Supreme Court. This controls for the propensity of (at least) the modern-day Court to

47. *See infra* Table 5: The Business Cycle. For a complete historical table of the business cycle, see Nat'l Bureau of Econ. Research, *supra* note 10.

48. Although these sectors contribute only a small portion of GDP, they are highly sensitive to interest rates and consumer demand and thus industrial production is viewed as an important tool for forecasting national economic performances. *See* ABEL ET AL., *supra* note 7, at 300.

49. *See supra* Table 1: Summary Statistics.

50. *See* Nancy Staudt, Lee Epstein & Peter Wiedenbeck, *The Ideological Component of Judging in the Taxation Context*, 84 WASH. U. L. REV. 1797, 1800 (2006).

51. In our database, Democratic Courts decided 59 percent of the cases (n=488); Republican Courts, 41 percent (n=339).

reverse lower court decisions, which, in turn, may reflect strategic political considerations on the part of the Justices.[52]

Finally, two other covariates reflect the substantive focus of our study, taxation. One variable is whether the party opposing the government is a corporate taxpayer or not. We included this variable for two reasons. First, Congress implemented the individual income tax in 1913 under highly contentious circumstances[53] and thus it is possible that the Justices' views of the individual and corporate income taxes diverged for any number of reasons unrelated to the observable variables in our model. Second, previous empirical work suggests that judicial political preferences are more evident in corporate tax cases than in other contexts. Thus controlling for the party opposing the government enabled us to better parse the possible political factors at work.[54] We also added a control for whether the tax measure at issue in the litigation was related to a war-related law, such as the War Revenue Act of 1917. Our data indicate that the Justices are highly predisposed to favor the government in war-related cases,[55] and by adding this control we were able to obtain more precise results (that is, lower standard errors for the independent variables of interest).

C. Statistical Models and Predictions

For purposes of identifying the possible influence of national economic conditions on the U.S. Supreme Court, we examined the effects of macroeconomic variables on the probability of a win for the federal government. To this end, as we just noted, we specified two dependent variables: *Outcome*, which is simply whether the government won (=1) or lost (=0); and *Vote Share*, which is the percentage of Justices on the Court who voted with the government. Owing to the high correlation between our independent variables, *Economic Cycle* and *Industrial Production*, we could not use both in

52. Jan Palmer, *An Econometric Analysis of the U.S. Supreme Court's Certiorari Decisions*, 39 PUB. CHOICE 387, 390–91 (1982).

53. For a discussion of the history leading up to the ratification of the Sixteenth Amendment and the subsequent enactment of the modern income tax in 1913, see KLEIN ET AL., *supra* note 41, at 4–5.

54. *See* Staudt et al., *supra* note 50, at 1800.

55. Over the course of the entire pre-1930 and 1930s eras, the cases in our data set have a government win rate of approximately 65 percent overall, but this number increases to approximately 80 percent when only cases dealing with war-related laws are considered.

the same statistical model.[56] Accordingly, we constructed separate models, hoping that they would produce consistent results regardless of the particular economic indicator. If our theory holds, both indicators should be positively correlated with the government's win rate during the first period (pre-1930) and negatively correlated during the second period (the Depression years).

For the dependent variable, *Outcome*, we used a logit model to determine the effect of the economy on the case outcome. This type of model expresses the probability of a government win in terms of the inverse logit function. The models for our two different economic independent variables are

$$\Pr(Y_{it} = 1) = \text{logit}^{-1}\left(\beta_0 + \beta_1 Economic\_Cycle_t + \boldsymbol{\beta}\mathbf{X}_{it}\right) \quad (1)$$

$$\Pr(Y_{it} = 1) = \text{logit}^{-1}\left(\beta_0 + \beta_1 Industrial\_Production_t + \boldsymbol{\beta}\mathbf{X}_{it}\right) \quad (2)$$

in which Y_{it} is the value of the *Outcome* variable in case *i* in month *t*. In each model, the coefficient β_1 represents the influence of the economy on the probability of a government win. The expression $\boldsymbol{\beta}\mathbf{X}_{it}$ denotes the other independent variables for which we controlled, including the fraction of Republican appointees on the Court, a binary variable equal to 1 if the United States is the appellant and 0 otherwise, a binary variable equal to 1 if the taxpayer is a corporation and 0 otherwise, and a binary variable equal to 1 if the law is related to a war and 0 otherwise.

For the dependent variable, *Vote Share*, we used an ordinary least squares model to determine the effect of the economy on the case outcome. The models for our two different economic independent variables in this case are

$$Y_{it} = \beta_0 + \beta_1 Economic\_Cycle_t + \boldsymbol{\beta}\mathbf{X}_{it} \quad (3)$$

$$Y_{it} = \beta_0 + \beta_1 Industrial\_Production_t + \boldsymbol{\beta}\mathbf{X}_{it} \quad (4)$$

in which Y_{it} is the value of the *Vote Share* variable in case *i* in month *t*. The coefficient β_1 again represents the influence of the economy on

56. The models we use require independent variables in a single model to be uncorrelated. If this requirement is not met, there is said to be collinearity between the variables, which can cause biased estimates of the results as well as inflated error terms. *See* JACK JOHNSTON & JOHN DINARDO, ECONOMETRIC METHODS 89 (4th ed. 1997).

the probability of a government win, and the expression $\beta \mathbf{X}_{it}$ again denotes the other independent variables we controlled for.

Recall that we theorized that that the Justices would act like voters in the pre-1930 era, rewarding the federal government for observed economic growth and productivity and punishing policymakers for national economic decline. If the "Justices as voters" model aptly characterizes the Court's decisions, then economic downturns should cause a decrease in government win rate. Accordingly, we expected the *Economic Cycle* and *Industrial Production* variables to yield positive coefficients (economic expansions and high levels of industrial production trend with a high level of progovernment outcomes).

In the 1930s, a period in which the nation experienced a severe depression, we expected that the Justices would not attribute economic outcomes to policymaking competence but to exogenous shocks beyond the control of the economic managers. In this context, our theory suggests that the Justices would seek not to punish elected officials for economic conditions but to work as a "team" to stimulate national recovery. Thus, we expected the *Economic Cycle* and *Industrial Production* variables to produce negative coefficients (economic contractions and lower levels of industrial production trend with a high level of progovernment outcomes).

D. Unobservable and Immeasurable Variables

Before turning to our empirical results, we would like to comment on the possibility of confounding by unobservable and immeasurable variables that could affect judicial decisionmaking but were necessarily left out of our models. To see the problem, it is important to understand that we conceptualized the economic conditions as if they were a "treatment" on the Justices. Empiricists label this type of study a "natural experiment" or "quasi-experiment" because the treatment arguably arose due to an exogenous event completely outside the control of the subjects under investigation (here the Justices on the Supreme Court).[57] In our study, the Justices themselves did not cause the economic expansion or contraction and

57. An example of a natural experiment in another context is the study by Sargent, Shepard, and Glantz of the effect of a smoking ban (the treatment) on the incidence of hospital admissions for heart attacks in Helena, Montana. Richard P. Sargent, Robert M. Shepard & Stanton A. Glantz, *Reduced Incidence of Admissions for Myocardial Infarction Associated with Public Smoking Ban: Before and After Study*, 328 BRIT. MED. J. 977, 977–80 (2004).

did not control production in the manufacturing, mining, or utility sectors of the economy. Many experts argue that identifying the true cause of macroeconomic cycles or production levels is impossible for anyone; observers know they shift and change but not what causes the observed variation.[58]

A natural or quasi-experiment always has a control group, which is not affected by the event, and a treatment group, which the experimenter believes is affected. The behaviors or outcomes of the two groups are compared for purposes of measuring the effects of the treatment on the population of interest.[59] In our study, for example, the cases on the Court's docket during declining economic periods were subject to the recessionary treatment, whereas the cases decided in prosperous times comprise the control group. If the government's win rate in the treated cases diverges from that observed for the control group, then we have evidence that the economy affects judicial decisionmaking.

The central feature of a classic randomized experiment—the existence of a control group to estimate what would have happened in the absence of the treatment—underlies the idea of a natural experiment, which this study relies on to identify the effects of economic conditions. In the natural experiment, just as in a classic experiment, the researcher must make use of the differences in outcomes between the treatment group and a control group. The natural experiment differs from the classic experiment, though, in that the treatment status emerges through nature rather than at the hand of the scientist.[60] The fact that the treatment status in our study was not determined by a randomized procedure but by some other force raises the possibility that any comparison between our two groups of cases will be biased. To determine the credibility of the natural experiment—and to ensure unbiased results—it is important to examine the characteristics of the cases in both the control and treatment groups. Valid causal inferences require that the treatment and control groups be identical on all relevant factors. If the two groups differ, then it is possible that the observed differences in judicial outcomes have nothing to do with the economy and

58. *See* ABEL ET AL., *supra* note 7, at 282–443 (exploring competing explanations for emerging economic conditions).

59. DAVID CARD & ALAN B. KRUEGER, MYTH AND MEASUREMENT: THE NEW ECONOMICS OF THE MINIMUM WAGE 22–23 (1995).

60. *Id.*

everything to do with the type of case litigated in the Court or the judicial makeup of the Court.[61]

For the purposes of this study, the data suggest that our treatment and control groups are similar with respect to three of our four independent variables: *Government As Appellant*, *Corporate Taxpayer*, and *War-Related Legislation*. Table 2 provides summary statistics for these variables for the treatment and control groups as well as results for statistical comparison tests between the two groups. These statistics offer some evidence to support the credibility of this natural experiment in assessing the effects of the macroeconomy on the Court. It is impossible, however, to identify unobservable factors that might impact judicial outcomes such as litigant strategies that might shift with economic conditions. If either party pursues cases it believes are easier (or harder) to win because of macroeconomic factors, then this fact could explain the empirical results obtained, not the economy itself. Our empirical results could also be confounded if the Justices grant certiorari to different types of cases in recessionary periods than in periods of economic prosperity.

Table 2. Statistical Comparison of Treatment and Control Groups

Variable	Treatment Group		Control Group		Statistically Different (Y/N)[62]
	Mean	Std. Dev.	Mean	Std. Dev.	
Pre-1930 (54 treatment cases and 112 control cases)					
Government is Petitioner	.574	.499	.554	.499	N
Corporate Taxpayer	.296	.461	.411	.494	N
War-related Law	.093	.293	.098	.299	N
1930s (209 treatment cases and 219 control cases)					
Government is Petitioner	.555	.498	.539	.500	N
Corporate Taxpayer	.359	.481	.361	.481	N
War-related Law	.086	.281	.005	.068	Y[63]

61. For a terrific discussion of the empirical dangers associated with natural experiments, see Bruce D. Meyer, *Natural and Quasi-Experiments in Economics*, 13 J. BUS. & ECON. STAT. 151, 151–61 (1995).

62. We report that there is a statistical difference if a t-test between the control and treatment groups shows that the mean values for the two groups are different to a statistically significant level.

For purposes of this Essay, we make the (heroic) assumption that we constructed a legitimate natural experiment. In further research, however, we plan to investigate whether a selection problem in fact exists in the study, potentially raising doubts about the conclusions reached here. Indeed, this selection problem may exist in all empirical studies of the Supreme Court, but no scholar has systematically investigated the problem. Accordingly, we focus on this gap in the literature, seeking to fill it not only for this particular study but for all future studies of courts.[64]

III. EMPIRICAL RESULTS

With this important caveat, we turn to the results of our modeling exercise. Overall, we find support for our theory: the Justices act like voters in "typical business cycles," casting antigovernment votes in times of economic downturns and progovernment votes in periods when the economy is booming. In "atypical times," when the economy moves into a state of crisis, the Justices do not adopt the role of a disciplinarian but seek to support the government in an effort to help return the economy to a state of growth and stability.

Tables 3 and 4 present our findings.[65] Table 3, which presents the results for the typical business cycle, shows that, regardless of how we specify the model,[66] the Justices seem to use the economy as a signal for whether to reward or punish the U.S. government. Specifically, when the economic cycle is on the uptick (or industrial production is relatively high), the government's win rate increases, as indicated by

63. The war-law variable for the 1930s period is the only instance of a statistically significant difference between our treatment and control groups. This results because, of the nineteen cases relating to war laws during the 1930s, all but one of these were heard by the Court during treatment periods rather than control periods. As a result, there is a significant difference between the value of the war-law variable during the treatment and control periods of the 1930s.

64. For a preliminary investigation, see Tyler J. VanderWeele & Nancy C. Staudt, Causal Diagrams for Empirical Legal Research: Methodology for Identifying Causation, Avoiding Bias, and Interpreting Results (Mar. 26, 2009) (unpublished manuscript, on file with the *Duke Law Journal*) (explaining how investigators can address selection problems by using causal graphs to clarify qualitative modeling assumptions).

65. Because we expect the coefficients to have different signs in the two different eras, we estimate the models separately to avoid results that simply present the average of the two time periods of interest.

66. The one exception here is Model 4, in which the coefficient on *Industrial Production* is correctly signed but fails to reach a standard level of statistical significance ($p < .05$). Its p-value is .059.

the positive coefficients on the economic variables. Put differently, even after controlling for the Court's composition and various features of its selection process, along with other relevant covariates, the Justices seem to be responding positively to (their perceptions of) competent economic management. And vice versa.

Table 3. Results for Pre-1930 Regressions[67]

Variable	Model 1 (*Outcome*)	Model 2 (*Vote Share*)	Model 3 (*Outcome*)	Model 4 (*Vote Share*)
Economic Cycle	.967*	.163*		
	(.362)	(.076)		
Industrial Production			16.541*	2.263
			(6.43)	(1.187)
Fraction Republican	-.255	-.121	-3.111	-.565
	(3.717)	(.713)	(7.64)	(1.152)
Government Side	-.956*	-.220*	-.773*	-.186*
	(.368)	(.072)	(.398)	(.081)
Corporate Taxpayer	.699	.172*	.999*	.224*
	(.369)	(.071)	(.436)	(.082)
War-Related Law	-.511	-.159	-.721	-.191
	(.578)	(.106)	(.603)	(.115)
Constant	.332	.657	2.944	1.067
	(2.800)	(.541)	(5.88)	(.881)
N	163	166	135	138
Log-Likelihood	-100.123		-84.144	

Note: In Models 1 and 3, the dependent variable is whether the U.S. government won (=1) or lost (=0). We estimated these models using logistic regression, with robust standard errors in parentheses. In Models 2 and 4, the dependent variable is the fraction of Justices casting a vote in favor of the U.S. government. We estimated these models using ordinary least squares regression, with robust standard errors in parentheses. An asterisk indicates a *p* value of less than .05.

67. The Stata code for generating these results with the data available on the website for this paper is as follows: for Model 1: logit outcome cycle PropRCt_dec govtside corp_tp war_law if year_oral<1930, robust; for Model 2: regress outcome_share cycle PropRCt_dec govtside corp_tp war_law if year_oral<1930, robust; for Model 3: logit outcome indpro_pctchg1m PropRCt_dec govtside corp_tp war_law if year_oral<1930, robust; and for Model 4: regress outcome_share indpro_pctchg1m PropRCt_dec govtside corp_tp war_law if year_oral<1930, robust.

Moreover, the response is not merely statistically significant but also substantial in magnitude. To provide but one example: setting all other variables in Model 2 at their mean or mode, when the government is the petitioner and *Economic Cycle* equals 1, over half of the sitting Justices can be expected to vote in the government's favor.[68] Holding this scenario constant but making *Economic Cycle* equal 0, the government's expected vote share falls to about one-third of the Court.[69]

With respect to the 1930s, a period of extended economic crisis, we obtained results precisely opposite those we obtained for the pre-1930 period. As Table 4 shows (and again regardless of how we specify the model), as the economy deteriorates even further, the government's expected vote share (and its likelihood of success) actually increases. This result follows from our theory that, during a depression-like period, the Justices will side more often with the government in times of relative economic contraction in order to help fend off the crisis. All else being equal,[70] during depression-like periods, as economic conditions move from bad to worse, we would expect the government's vote share to equal about three-fourths of the sitting Justices.[71]

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68. .51, with a 95 percent confidence interval of .39, .63.

69. .34, with 95 percent confidence interval of .19, .49. The Stata code for generating the results of this paragraph using the data available on the website for this paper makes use of S-Post and is as follows: for the Model 2 regression: regress outcome_share cycle PropRCt_dec govtside corp_tp war_law if year_oral<1930, robust; for the prediction when *Economic Cycle* is 0: prvalue, x(cycle=0 PropRCt_dec=mean govtside=1 corp_tp=0 war_law=0); for the prediction when *Economic Cycle* is 1: prvalue, x(cycle=1 PropRCt_dec=mean govtside=1 corp_tp=0 war_law=0).

70. We made all else equal by setting all other variables at their mean or mode when the government is the appellant and the economic cycle is negative. The Stata code for generating the results of this paragraph using the data available on the website for this paper makes use of S-Post and is as follows: for the Model 2 regression: regress outcome_share cycle PropRCt_dec govtside corp_tp war_law if year_oral>=1930 & year_oral<=1940, robust; for the prediction when *Economic Cycle* is 0: prvalue, x(cycle=0 PropRCt_dec=mean govtside=1 corp_tp=0 war_law=0); for the prediction when *Economic Cycle* is 1: prvalue, x(cycle=1 PropRCt_dec=mean govtside=1 corp_tp=0 war_law=0).

71. The point estimate for the vote share is .73, with a 95 percent confidence interval of .65 to .80. (It decreases to under about .50, with a 95 percent confidence interval of .42 to .58, when the economy looks to be recovering.)

Table 4. Results for the 1930s Regressions[72]

Variable	Model 1 (outcome)	Model 2 (vote share)	Model 3 (outcome)	Model 4 (vote share)
Economic Cycle	-1.243*	-.226*		
	(.246)	(.044)		
Industrial Production			-7.154*	-1.346*
			(3.496)	(.607)
Fraction Republican	-1.958*	-.191	-.241	.115
	(.752)	(.136)	(.651)	(.130)
Government Side	-.419	-.096*	-.350	-.086*
	(.223)	(.041)	(.215)	(.042)
Corporate Taxpayer	.247	.027	.272	.034
	(.232)	(.044)	(.226)	(.045)
War-Related Law	1.784	.180*	2.093*	.231*
	(1.087)	(.070)	(1.075)	(.069)
Constant	2.747*	.939*	.950*	.625*
	(.598)	(.103)	(.446)	(.088)
N	428	428	428	428
Log-Likelihood	-249.077		-259.981	

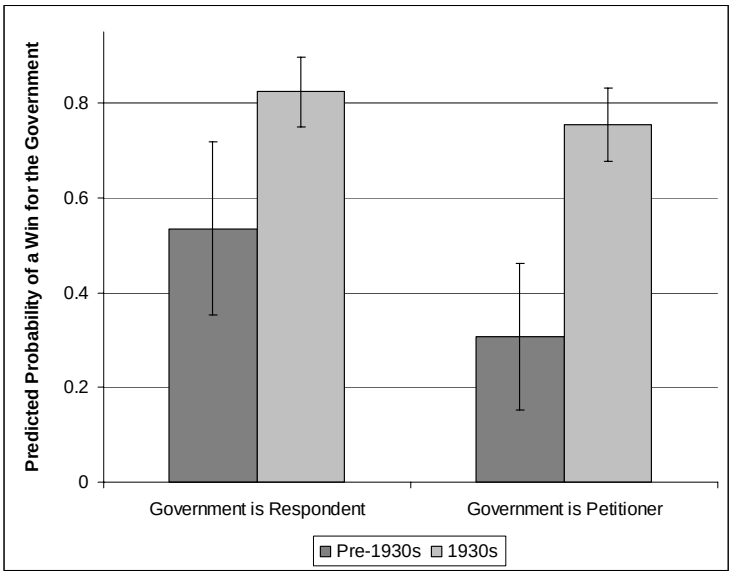
Note: In Models 1 and 3, the dependent variable is whether the U.S. government won (=1) or lost (=0). We estimated these models using logistic regression, with robust standard errors in parentheses. In Models 2 and 4 the dependent variable is the fraction of Justices casting a vote in favor of the U.S. government. We estimated these models using ordinary least squares regression, with robust standard errors in parentheses. An asterisk indicates a *p* value of less than .05.

Taking the two eras collectively the comparison is stark, as Figure 2 shows. This figure depicts the predicted probability of a win

72. The Stata code for generating these results with the data available on the paper website is as follows: for Model 1: logit outcome cycle PropRCt_dec govtside corp_tp war_law if year_oral>=1930 & year_oral<=1940, robust; for Model 2: regress outcome_share cycle PropRCt_dec govtside corp_tp war_law if year_oral>=1930 & year_oral<=1940, robust; for Model 3: logit outcome indpro_pctchg1m PropRCt_dec govtside corp_tp war_law if year_oral>=1930 & year_ oral<=1940, robust; and for Model 4: regress outcome_share indpro_pctchg1m PropRCt_dec govtside corp_tp war_law if year_oral>=1930 & year_oral<=1940, robust.

for the federal government during downturns in the economy for the crisis and noncrisis periods in our dataset (with all other variables at their modes or means). The government, whether petitioner or respondent, was far more likely to prevail during troughs in the Great Depression than in downturns occurring in the earlier era. When the United States was a petitioner in tax suits prior to 1930 and the economy was in a downward spiral, we predicted defeat for the United States in seven out of ten disputes. But for the 1930s depression era, we predicted a win for the government in seven out of ten cases.

Figure 2. Predicted Probability that the Government Will Prevail in Periods of Economic Decline



Note: The predicted probabilities are based on Model 1 in Tables 3 (pre-1930) and 4 (1930s) with the economic cycle set at 0 and all other variables set at their mean or mode. As the figure indicates, regardless of the government's position, it won quite a bit more often in the 1930s depression era than in the pre-1930 cycle.

These findings offer preliminary support for our model. They also point out that the period was more complex than is suggested by much commentary arguing that the Justices regularly decided cases against the U.S. government in the 1930s, sparking President

Roosevelt's Court-packing plan.[73] In fact, during the 1930s—at least in the context of taxation cases—the Justices exhibited a strong and unambiguous preference *in favor of* the federal government, not against the government as the conventional wisdom holds.[74] Importantly, our results are not driven by decisions rendered after February 1937, when the Court-packing plan was unveiled; we reestimated our models using only cases orally argued prior to that date and obtained nearly identical results.[75]

Our theory and empirical results not only enhance our understanding of the Court and challenge existing literature on interbranch dynamics during the 1930s, but they also carry implications for the economic crisis emerging in 2008. Much like the Depression era, a Republican Court and a Democratic government are in place. At least in the area of taxation, it is quite possible that

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73. *See, e.g.*, JACKSON, *supra* note 38, at 180 ("It was apparent that the immediate difficulty was with the Justices, not the Court . . . . It was only a bare majority of them whose hostility to the Administration was so fixed and extreme . . . ."); C. HERMAN PRITCHETT, THE ROOSEVELT COURT 5–6 (1948) (detailing the law struck down by the Supreme Court, and then noting that "[t]hese leads from the Supreme Court were promptly followed by the lower federal courts, which proceeded to grant during 1935 and 1936 some 1600 injunctions restraining officers of the federal government from carrying out acts of Congress"); SWINDLER, *supra* note 38, at 48 ("As though it were impatient for Aramgeddon, the Court in 1936 cast one affront after another into the teeth of the New Dealers."). This is also a view repeated in many constitutional law casebooks. *See, e.g.*, JEROME A. BARRON, CONSTITUTIONAL LAW: PRINCIPLES AND POLICY 93 (7th ed. 2006) ("The programs of the New Deal were designed to ameliorate the impact of the depression . . . .The early challenges to the philosophy represented by the efforts, produced Supreme Court results that were not favorable to the administration."); ERWIN CHEMERINSKY, CONSTITUTIONAL LAW 129–30 (2005) ("By the mid-1930s, there were enormous pressures for a change in the Supreme Court's narrow approach to defining the scope of Congress's power. . . . [T]he Court also was narrowly interpreting the scope of other Congressional powers . . . ."); CRAIG R. DUCAT, CONSTITUTIONAL INTERPRETATION 308 (9th ed. 2009) ("Tenacious adherence to an artificial view of the economy . . . ultimately set the Executive and the Court on a collision course."); KATHLEEN M. SULLIVAN & GERALD GUNTHER, CONSTITUTIONAL LAW 94 (16th ed. 2007) ("The 1935 and 1936 decisions persuaded the Roosevelt Administration that strong measures were needed to save the New Deal from judicial invalidation. Several major New Deal laws had already been held unconstitutional; others . . . might well have met a similar fate."). Even PAUL BREST ET AL., PROCESSES OF CONSTITUTIONAL DECISIONMAKING (2006), which drops a footnote noting Barry Cushman's *Rethinking the New Deal* challenge to this "conventional" portrayal of the confrontation between Roosevelt, *id.* at 499 n.1, rehearses the more conventional approach in the text when they quote McCloskey, *id.* at 511 ("[T]he Court waged what is surely the most ambitious dragon-fight in its long and checkered history." (quoting MCCLOSKEY, *supra* note 38, at 110)).

74. *See, e.g.*, LEUCHTENBURG, *supra* note 38, at 142–44.

75. The coefficients on the variable *cycle* are positive and statistically significant in our reestimated models. The coefficients on *industrial production* are also positive but do not achieve statistical significance.

the Roberts Court will join forces with the Obama administration to operate as a team to enable economic recovery. Put differently, if the Justices perceive the economic conditions of crisis that began in 2008 as atypically negative, we should expect opinions that defer to rather than punish federal policymakers.

These are but a few *possible* implications of our study, but "possible" is the operative word given the preliminary nature of our work and a number of important limitations. To name just a few:

Unobservable and Immeasurable Variables. As we noted in Part II.D, it is entirely possible that the kinds of cases the government litigate and the Justices decide to hear differ during peaks and troughs in the business cycle. For purposes of this study, we decided to put this concern to the side (as do virtually all scholars of the Court). Because this was likely a perilous choice, in follow-up analyses we intend to make use of methods developed in the statistical sciences to deal with the selection problem we confronted in this initial study.

Variations in the Nature of Cases Between Periods. The annual number of tax cases decided by the Court increased substantially from the pre-1930 period to the 1930s period.[76] This change could reflect a change in the nature of the tax cases being heard. In addition, other factors may alter the nature of the tax cases being heard over time. Because a change in the nature of the cases could affect the probability of the government winning, in follow-up analyses we intend to study further whether the nature of the cases actually changes, as well as to control for any such changes.

The Justices' Political Preferences. For this study, we captured the Court's political preferences with a measure keyed to the percentage of the Court appointed by a Republican president. Although we believe that partisanship is the most relevant factor in decisionmaking in the economic context, other formulations are possible. Moreover, in light of dominant theories in political science, it may be worthwhile to consider measures designed to tap the Justices' ideologies, even if only as a robustness check.

The Political Context. Legal and political models are quite prevalent in the social science literature, so are institutional accounts. These accounts may differ slightly but their basic idea is the same. The core idea is that the Justices, whether to maintain their legitimacy

76. *See supra* note 43.

or to maximize their policy preferences (that is, to ensure that the ultimate state of law reflects, to the extent possible, their preferred policies), attend to preferences and likely actions of the elected branches. We, in turn, should attend to this account in our model, incorporating variables designed to represent the preferences of the various political actors. Doing so would also enable us to detect whether Republican Courts, for example, defer to Republican but not Democratic governments during times of economic crisis.

CONCLUSION

Scholars and commentators have long argued that Supreme Court Justices seek to advance legal and political goals in the decisionmaking process. But for just as long they have ignored the role macroeconomy may play in disputes involving economic regulation. We sought to fill this gap by considering the effect of variables designed to tap the state of the macroeconomy—*Economic Cycles* and *Industrial Production*—after controlling for the political composition of the Court and various other independent variables that may explain outcomes or confound our results. We found preliminary support for our model.

APPENDIX

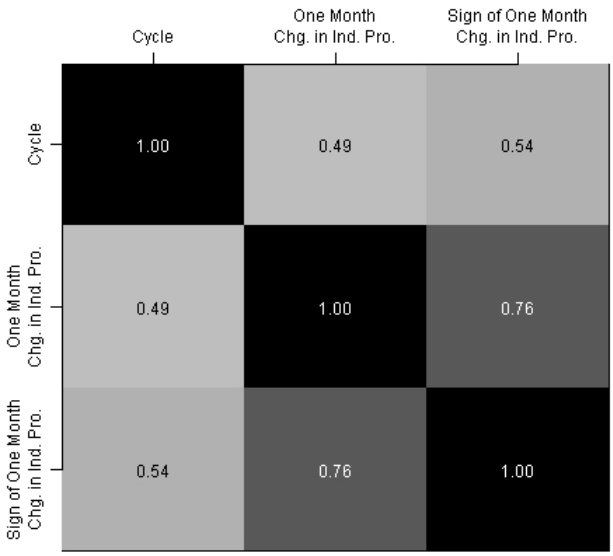
In what follows we supply more information on the measures of the macroeconomy we used in our statistical analyses.

A. Correlation Table. Figure 3 illustrates the correlation of our economic variables of interest. Using data from 1919 to 1940, we found the *Economic Cycle* and *Industrial Production* variables to have a positive correlation of 49 percent. We also calculated the correlation between the sign (either plus or minus one) of the *Industrial Production* and *Economic Cycle* variables, and we obtained a value of 54 percent. Finally, we calculated the correlation between the *Industrial Production* variable and its sign to be 76 percent.

The fact that the economic cycle variable is binary instead of continuous means that care must be taken in interpreting our calculated values. Ideally, we would like to have a continuous version of the *Economic Cycle* variable and find its correlation with the *Industrial Production* variable, but because no such continuous variable is observed, we cannot undertake such a calculation. We instead make our variables more comparable by considering the sign

of the *Industrial Production* variable, a binary quantity. The correlation of this new binary variable with the *Economic Cycle* variable is 54 percent. To provide a sense of how this value relates to a correlation between continuous variables, we note that, if two normally distributed random variables have signs with a correlation of 54 percent, then the correlation between the underlying continuous variables is actually 75 percent.[77]

Figure 3. Correlation Relationships Among Economic Cycle, Industrial Production, and Sign of Industrial Production



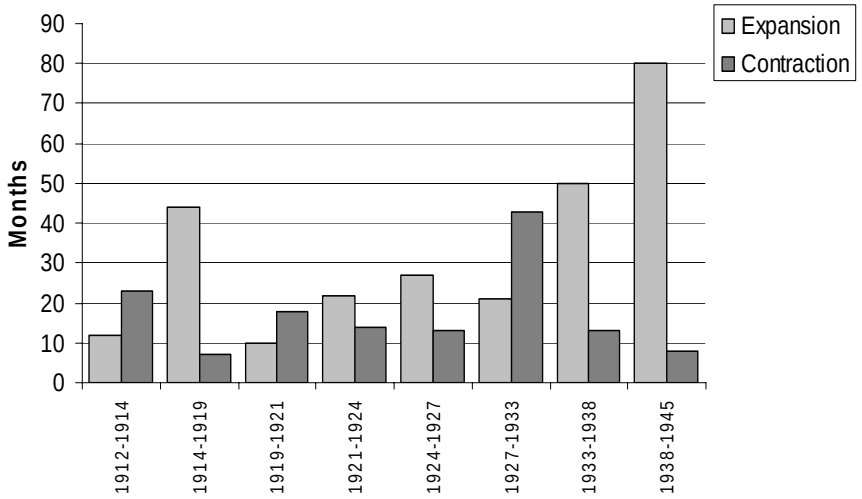
77. The formula for the correlation between the signs of two normally distributed random variables is $1-\frac{2}{\pi}\left(\tan^{-1}(1/t)-\tan^{-1}(t)\right)$, in which $t=\frac{\sqrt{1+c}-\sqrt{1-c}}{\sqrt{1+c}+\sqrt{1-c}}$, and c is the correlation between the continuous random variables. Substituting c =.75 into this formula yields a value of approximately .54.

B. The Business Cycle. We used NBER data to determine when the country was in a state of recession—the period between a trough and peak. Table 5 provides the dates of recessions occurring during the period from 1912 to 1945. Figure 4 illustrates the cycle of recessions and expansions during this period.

Table 5. The Business Cycle

Date of Trough	Length of Following Expansion (Months)		Date of Peak	Length of Following Contraction (Months)	
Jan. 1912	12		Jan. 1913	23	
Dec. 1914	44	(World War I)	Aug. 1918	7	
Mar. 1919	10		Jan. 1920	18	
July 1921	22		May 1923	14	
July 1924	27		Oct. 1926	13	
Nov. 1927	21		Aug. 1929	43	(Great Depression Starts)
Mar. 1933	50		May 1937	13	
June 1938	80		Feb. 1945	8	

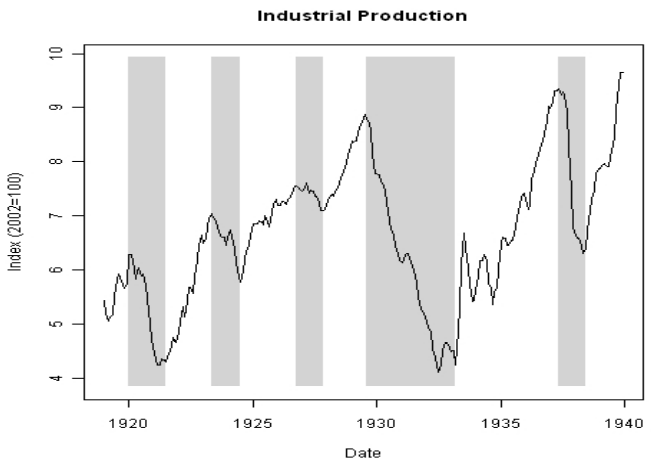
Figure 4. Graphical Depiction of the Business Cycle



C. Industrial Production. We used Industrial Production Index data from "FRED," a public database made available by the Federal Reserve in St. Louis, as the basis for computing our industrial production variable.[78] The index is normalized to have a value of 100 in 2002, and our *Industrial Production* variable is calculated as the one-month percentage change in the index.

Figure 5 shows how the industrial production index varied over the time period from 1919 to 1940, and the gray shaded regions correspond to periods of economic contraction (i.e., periods in which the economic cycle variable is equal to 0). Figure 6 illustrates the values of our *Industrial Production* variable over this same time period with empty circles denoting times of economic expansion and filled-in circles denoting times of economic contraction. Figure 7 shows the values of our *Industrial Production* variable for only those months appearing in the set of oral argument dates for our data. Points in this plot have areas corresponding to the number of times a particular month appeared in our data.

Figure 5. Industrial Production



78. The "FRED" database is available at http://research.stlouisfed.org/fred2/.

Figure 6. Historic One-Month Changes in Industrial Production

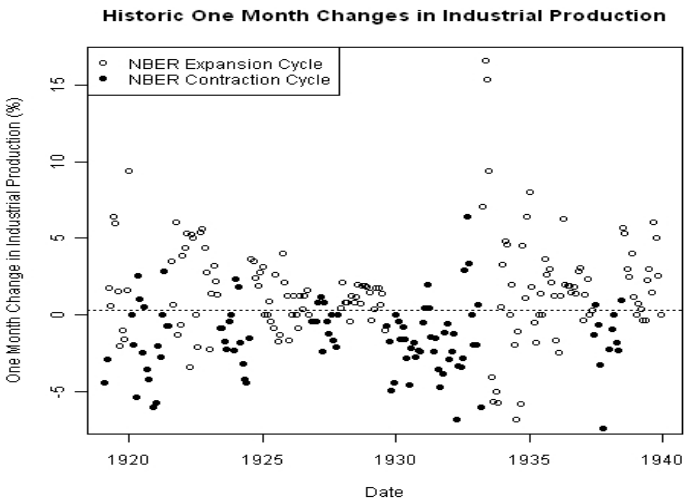


Figure 7. One-Month Changes in Industrial Production in Sample